

WHAT IS CLAIMED IS

1. A light emitting diode comprising:
a plurality of reflective layers stacked on each other to form a reflection structure,
each reflective layer comprising a distributed Bragg reflector;
a substrate formed on a top surface of the stack of reflective layers;
an N type semiconductor layer formed on the substrate;
a light emitting layer formed on the N type semiconductor layer; and
a P type semiconductor layer formed on the light emitting layer;
wherein the stack of reflective layers is formed under the substrate to receive and
reflect light from the light emitting diode at different incident angles so as
to reduce light escape from the light emitting diode and enhance overall
brightness of the light emitting diode.
2. The light emitting diode as claimed in Claim 1, wherein the distributed Bragg
reflector is formed in accordance with light spectrum of the light emitting diode.
3. The light emitting diode as claimed in Claim 1, wherein the substrate is made of
transparent material.
4. The light emitting diode as claimed in Claim 2, wherein the reflection structure is
made of compounds selected from a group consisting of oxides, nitrides, carbides
and fluorides.

5. A light emitting diode comprising:
 - a substrate;
 - a stack of reflective layers forming a reflection structure on the substrate, each reflective layer comprising a distributed Bragg reflector;
 - an N type semiconductor layer formed on the stack of the reflective layers;
 - a light emitting layer formed on the N type semiconductor layer; and
 - a P type semiconductor layer formed on the light emitting layer;

wherein the reflective layers reflect light of different incident angles to alleviate escape of light from the light emitting diode and enhance overall brightness of the light emitting diodes.
6. The light emitting diode as claimed in Claim 5, wherein the distributed Bragg reflector is formed in accordance with light spectrum of the light emitting diode.
7. The light emitting diode as claimed in Claim 6, wherein each reflective layer of the stack is formed by at least one stacked pair of compounds that are selected in accordance with material used in epitaxy process of the light emitting diode.
8. The light emitting diode as claimed in Claim 7, wherein the material of the light emitting diode comprises AlGaInP, and wherein the compounds for the reflective layers are selected from a group consisting of AlInP, AlGaInP, AlAs and GaAs.
9. The light emitting diode as claimed in Claim 7, wherein the material of the light emitting diode comprises InGaN, and wherein the compounds for the reflective layers are selected from a group consisting of InGaN, AlGaN and GaN.

10. The light emitting diode as claimed in Claim 5, wherein the reflective layer is formed by metal-organic chemical vapor deposition.
11. The light emitting diode as claimed in Claim 5, wherein the reflective layer is formed by molecular beam epitaxy.